

## 1. SPECIFICATIONS

### (1) Absolute Maximum Ratings

(Ta=25°C)

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	IF	30	mA
Pulse Forward Current	IFP	100	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	120	mW
Operating Temperature	Topr	-30 ~ + 85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Soldering Temperature	Tsld	265°C for 10sec.	

IFP Conditions : Pulse Width  $\leq$  10msec. and Duty  $\leq$  1/10

### (2) Initial Electrical/Optical Characteristics

(Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit	
Forward Voltage	VF	IF=20[mA]	-	3.6	4.0	V	
Reverse Current	IR	VR= 5[V]	-	-	50	$\mu$ A	
Luminous Intensity	Rank T	Iv	IF=20[mA]	11000	12600	15500	mcd
	Rank S	Iv	IF=20[mA]	7800	9200	11000	mcd
	Rank R	Iv	IF=20[mA]	5520	6400	7800	mcd

\* Luminous Intensity Measurement allowance is  $\pm$  10%.

#### Color Ranks

		Rank a0			
x	0.280	0.264	0.283	0.296	
y	0.248	0.267	0.305	0.276	

		Rank b2			
x	0.296	0.287	0.330	0.330	
y	0.276	0.295	0.339	0.318	

(IF=20mA, Ta=25°C)

		Rank b1			
x	0.287	0.283	0.330	0.330	
y	0.295	0.305	0.360	0.339	

		Rank c0			
x	0.330	0.330	0.361	0.356	
y	0.318	0.360	0.385	0.351	

\* Color Coordinates Measurement allowance is  $\pm$  0.01.

\* One delivery will include up to two consecutive color ranks and three luminous intensity ranks of the products.

The quantity-ratio of the ranks is decided by Nichia.

## 2. TYPICAL INITIAL OPTICAL/ELECTRICAL CHARACTERISTICS

Please refer to figure's page.

## 3. OUTLINE DIMENSIONS AND MATERIALS

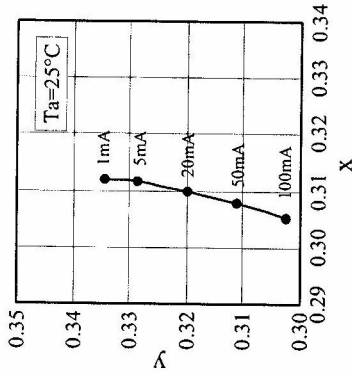
Please refer to figure's page.

Material as follows ;

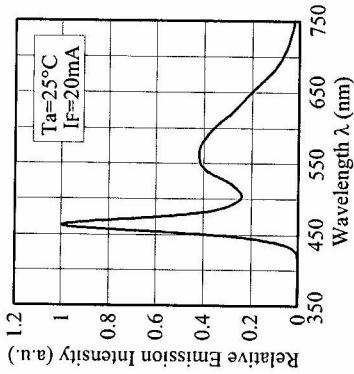
Resin(Mold) : Epoxy Resin (over YAG Phosphor)

Leadframe : Ag plating Copper Alloy

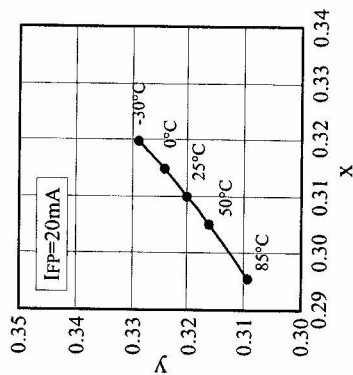
■ Forward Current vs. Chromaticity diagram



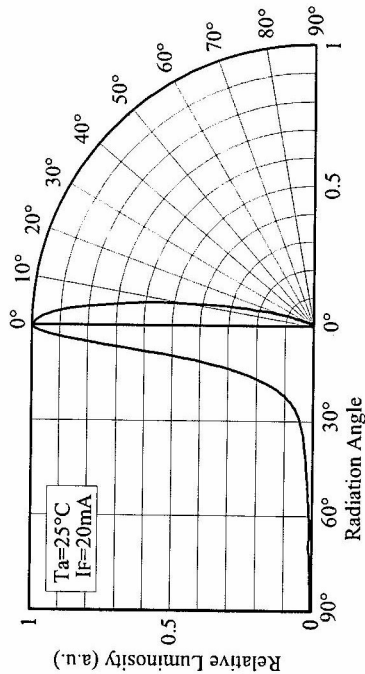
■ Spectrum



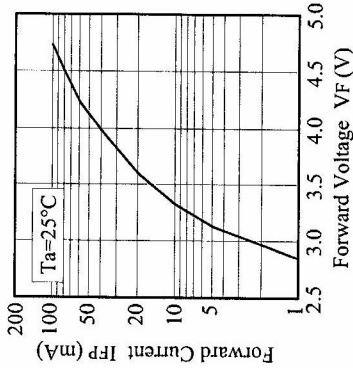
■ Ambient Temperature vs. Chromaticity diagram



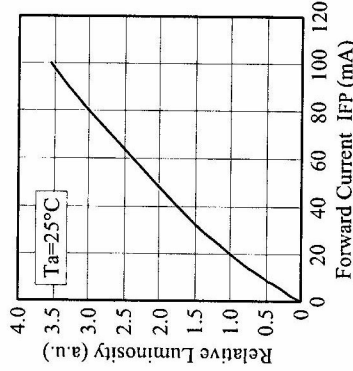
■ Directivity (NSPW500B(S))



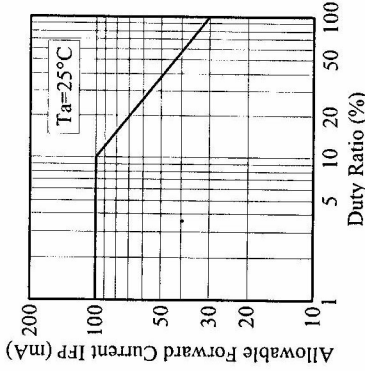
■ Forward Voltage vs. Forward Current



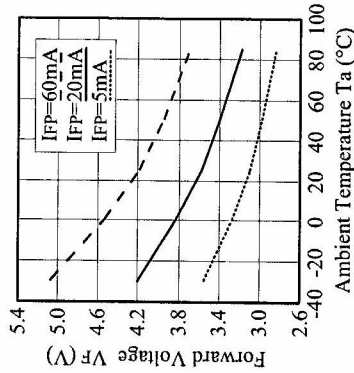
■ Forward Current vs. Relative Luminosity



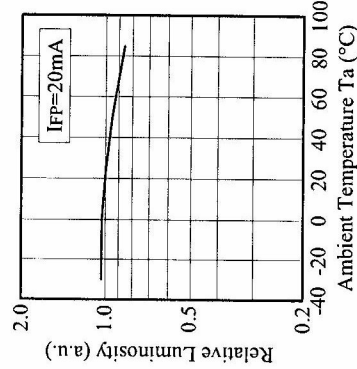
■ Duty Ratio vs. Allowable Forward Current



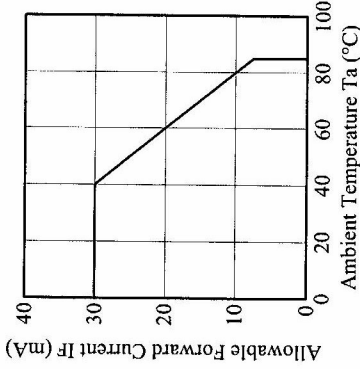
■ Ambient Temperature vs. Forward Voltage

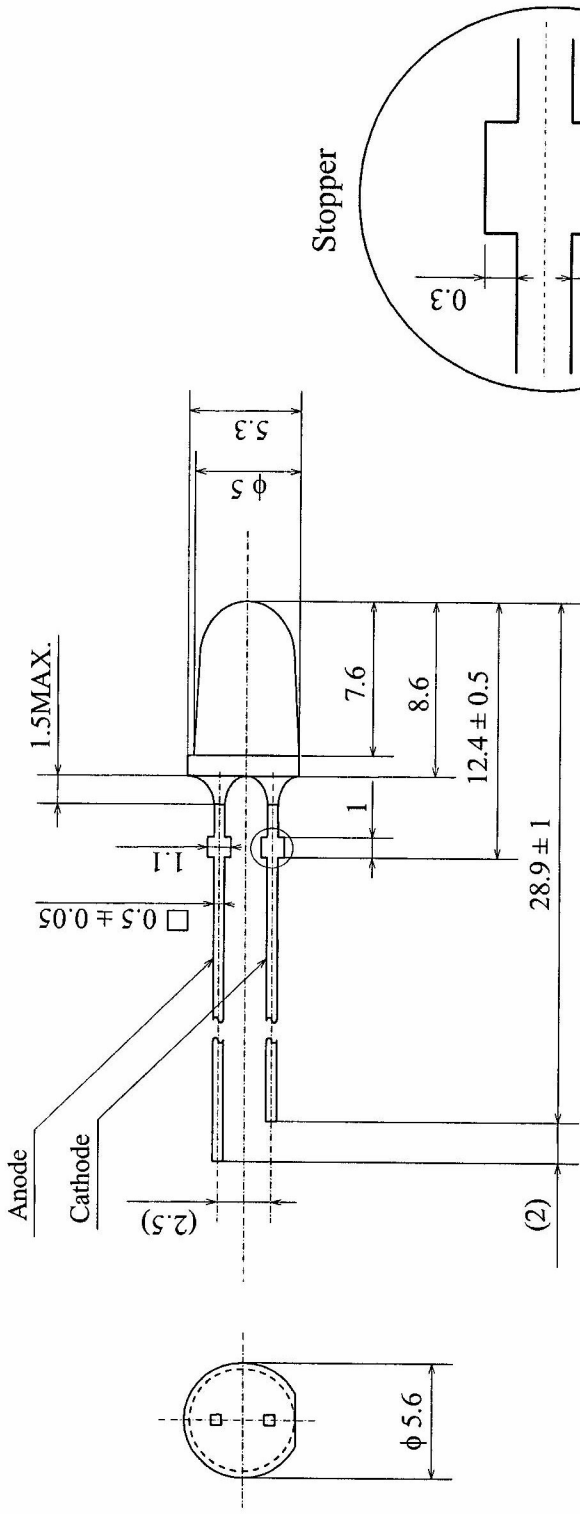


■ Ambient Temperature vs. Relative Luminosity



■ Ambient Temperature vs. Allowable Forward Current





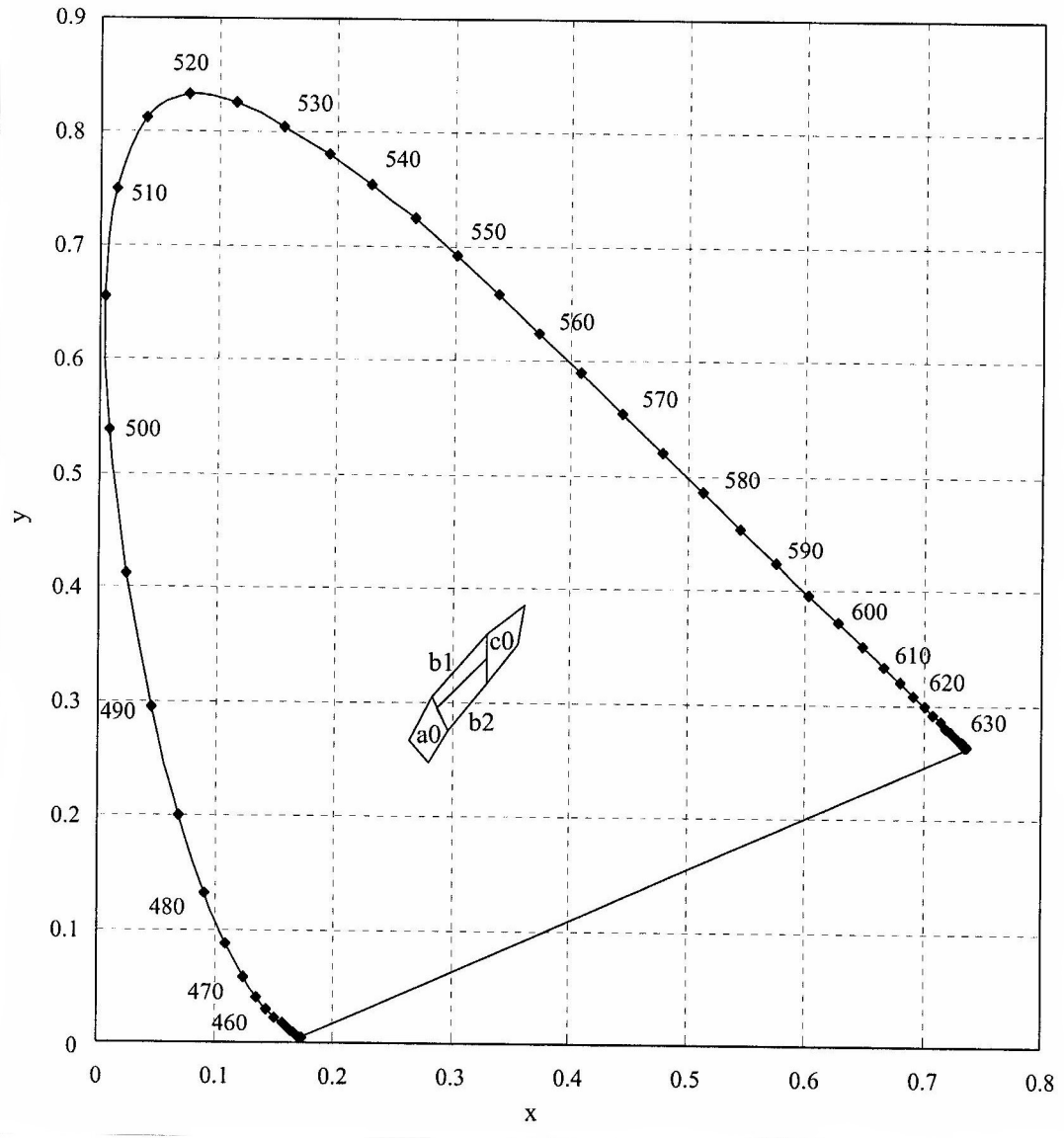
ITEM	MATERIALS
RESIN	Epoxy Resin (over YAG Phosphor)
LEAD FRAME	Ag Plating Copper Alloy

**Remark:**

Bare copper alloy is exposed at tie-bar portion after cutting.

The lamps have sharp and hard points that may injure human eyes or fingers etc., so please pay enough care in the handling.

### ICI Chromaticity Diagram



\* Color Coordinates Measurement allowance is  $\pm 0.01$ .

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